

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A method for producing a bag with a mouth member by melt-bonding a tubular mouth member comprising a thermoplastic resin and a bag unit comprising a flexible film, said method comprising

preheating the tubular mouth member set on a mouth member-rotator fitted to an endlessly connected moving device for moving the mouth member-rotator, while rotating the tubular mouth member around its cylinder axis,

inserting the heated mouth member into an opening part of the bag unit and

pressing and thereby melt-bonding the mouth member to the opening part of the bag unit,

cooling and removing the bag unit with the mouth member, and

the mouth member-rotator travels through a circuit of preheating, inserting, pressing, and cooling and removing by the endlessly connected moving device.
2. (original): The method for producing a bag with a mouth member as claimed in claim 1, wherein the preheating is performed by radiant heat.
3. (original): The method for producing a bag with a mouth member as claimed in claim 1, wherein in the course of inserting the heated mouth member into the opening part of the bag unit and pressing melt-bonding, the inside of the bag unit is decompressed by sucking out air inside the bag unit.

Claims 4-6. (canceled).

7. (previously presented): An apparatus for producing a bag with a mouth member by melt-bonding a tubular mouth member comprising a thermoplastic resin and a bag unit comprising a flexible film, said apparatus comprising

a mouth member-rotator for rotating a tubular mouth member around the cylinder axis of said tubular mouth member, and the mouth member-rotator is fitted to an endlessly connected moving device,

a mouth member supplier for supplying and setting a mouth member to said rotator,
a preheater for the rotating mouth member,

a melt bonding device for inserting the heated mouth member into the opening part of a bag unit and pressing and, thereby, melt-bonding the mouth member and the opening part of the bag unit,

a cooler for the melt-bonded bag with a mouth member, and a removing device for removing the cooled bag with a mouth member, and

the mouth member-rotator fitted to the endlessly connected moving device moves sequentially through a circuit of mouth member supplying, preheating, melt-bonding, cooking and removing the bag with a mouth member.

Claims 8-15. (canceled).

16. (previously presented): The apparatus for producing a bag with a mouth member as claimed in claim 7, wherein the mouth member-rotator comprises a support member for slidably supporting a mouth member, a support member basal end part for removably fixing the non-heated part of the mouth member to the support member, and a driven unit for rotating the mouth member.

17. (canceled).
18. (previously presented): The apparatus for producing a bag with a mouth member as claimed in claim 7, wherein the heat source of the preheater has a linear shape.
19. (previously presented): The apparatus for producing a bag with a mouth member as claimed in claim 7, wherein the heat source of the preheater comprises a pair of opposing heat sources opposing so as to sandwich the mouth member.
20. (previously presented): The apparatus for producing a bag with a mouth member as claimed in claim 7, wherein the mouth member-rotator has a duct for sucking out the air inside the bag with a mouth member.
21. (new): The method for producing a bag with a mouth member as claimed in claim 1, wherein the preheating step comprises preheating the tubular mouth member fixed to a support member on the mouth member-rotator fitted to the endlessly connected moving device for moving the mouth member-rotator, while rotating the tubular mouth member around its cylinder axis on the support member.